NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA
SURATHKAL, MANGALORE - 575 025

Course Code – CS254
Course Name – Database Systems Lab

Lab - 03
Date – February 9, 2022

Submitted To
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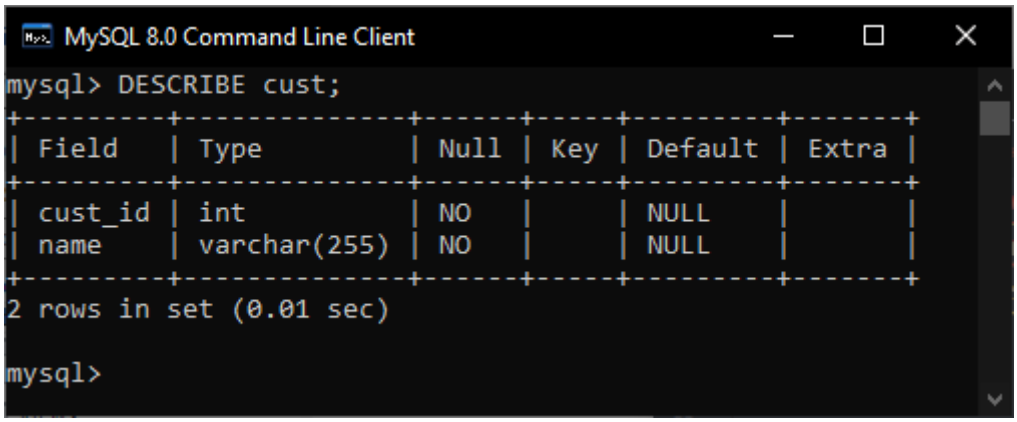
1. Create a table cust with following columns

Cust id as not null,
Name
Assume appropriate data types.

```
CREATE DATABASE lab;
USE lab;
CREATE TABLE cust (
    cust_id INT NOT NULL,
    name VARCHAR(50));
```

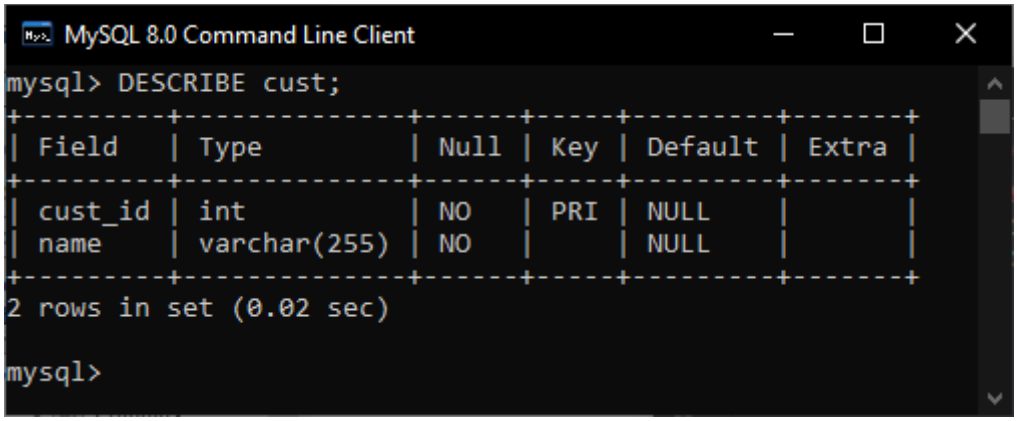
a. Alter the table cust to add not null constraint to name.

```
ALTER TABLE cust
CHANGE name
    name VARCHAR(255) NOT NULL;
```



b. Alter the table cust to add unique constrain to custid.

```
ALTER TABLE cust
ADD UNIQUE (cust_id)
```



Create table student with following columns

Regno
Mark
Where mark 0<=mark<=100.
Assume appropriate data types.

```
CREATE TABLE student (
    regno INT,
    mark INT,
    CHECK (0<=mark<=100));
```

a. Alter the student table to add the constraint to check the length of regno is 4.

```
ALTER TABLE student
ADD CHECK (LENGTH(regno) = 4)
```

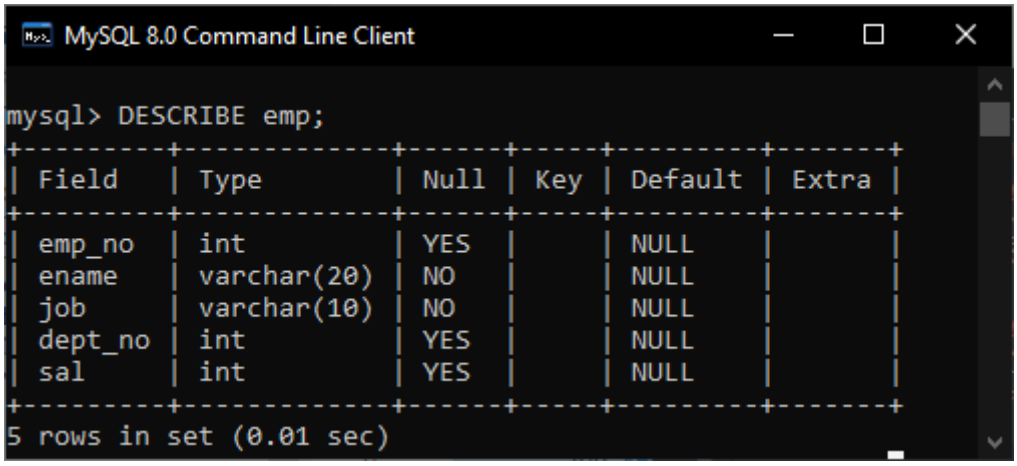
Create a table EMP with the following structure.

EMPNO NUMBER(6)
ENAME VARCHAR(20)
JOB VAECHAR(10)
DEPTNO NUMBER(3)
SAL NUMBER(7,2)

```
CREATE TABLE emp (
    emp_no INT,
    ename VARCHAR(20),
    job VARCHAR(10),
    dept_no INT,
    sal INT);
```

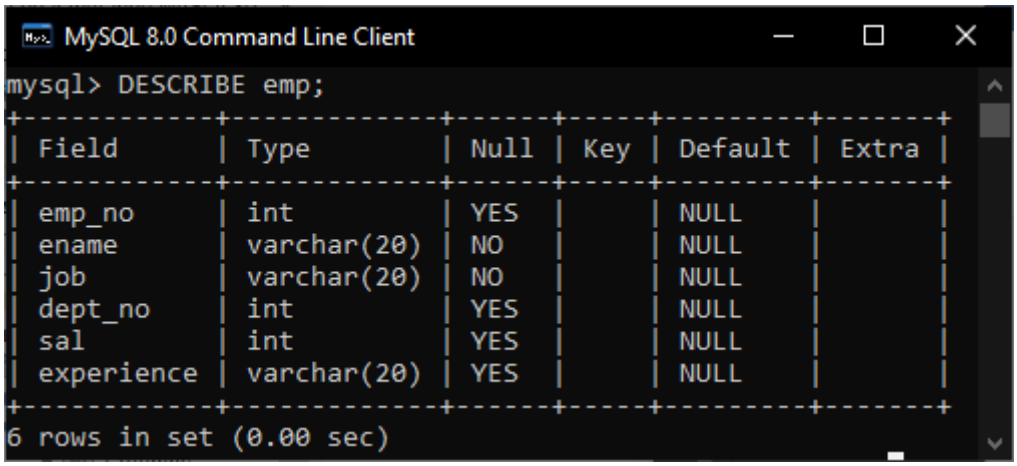
a. Allow NULL for all columns except ename and job.

```
ALTER TABLE emp
CHANGE ename
        ename VARCHAR(20) NOT NULL;
ALTER TABLE emp
CHANGE job
        job VARCHAR(10) NOT NULL;
```



b. Add a column experience to the emp table. Experience numeric null allowed. Modify the column width of the job field of emp table.

```
ALTER TABLE emp
ADD COLUMN experience VARCHAR(20);
ALTER TABLE emp
CHANGE job
    job VARCHAR(20) NOT NULL;
```



2. Create table products with following columns.

ProductID,
ProductName,
SupplierID,
CategoryID,
Unit,
Price
Assume appropriate data types.

Create table customers with the following columns –

CustomerID,
CustomerName,
ContactName,
Address,
City,
PostalCode,
Country
Assume appropriate data types.

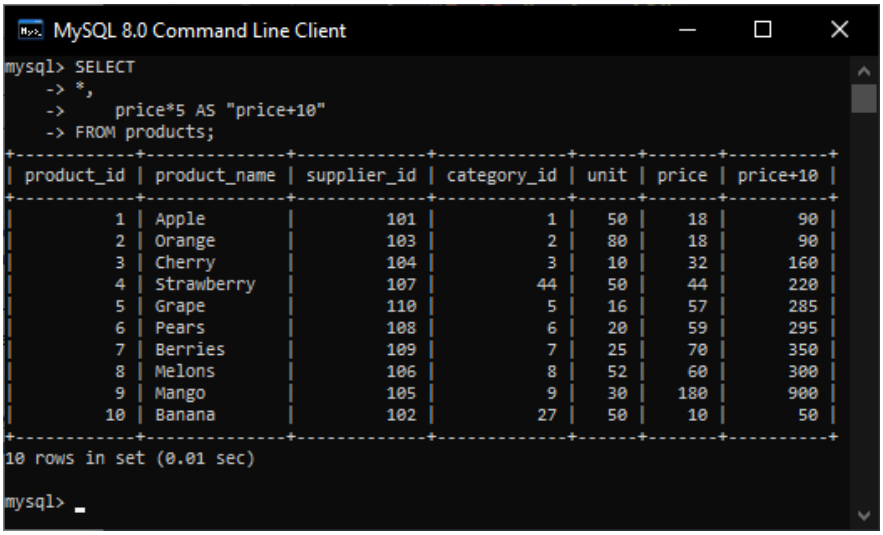
Insert at least 10 entries in each table.

```
CREATE DATABASE IF NOT EXISTS myshop;
USE myshop;
CREATE TABLE products (
    product_id INT NOT NULL,
    product_name VARCHAR(255),
    supplier_id INT NOT NULL,
    category_id INT NOT NULL,
    unit INT NOT NULL,
    price INT NOT NULL,
    PRIMARY KEY (product_id));

CREATE TABLE customers (
    customer_id INT NOT NULL,
    customer_name VARCHAR(255),
    contact_name VARCHAR(255),
    address VARCHAR(255),
    city VARCHAR(255),
    postal_code INT,
    country VARCHAR(255),
    PRIMARY KEY (customer_id));

INSERT INTO customers
    VALUES (501, "Hasan", "Rakib", "Surathkal", "Mangalore", 575025,
"India"),
    (502, "Mr Karim", "Mr Karim", "Surathkal", "UP", 575026,
"India"),
```

```
    (503, "Rahim", "Rahim Ali", "Surathkal", "Delhi", 575035,
"India"),
    (504, "Adnan", "Adnan Rakib", "Surathkal", "Kolkata", 575027,
"India"),
    (505, "Kabir", "Kabir Khan", "Surathkal", "Dhaka", 575000,
"Bangladesh"),
    (506, "Sohag", "Hafizur", "Surathkal", "Bangalore", 575050,
"India"),
    (507, "Tanaf", "Tanzimul", "Surathkal", "San Francisco", 575070,
"US"),
    (508, "Smrity", "Ayaan", "Surathkal", "Paris", 575080,
"Franch"),
    (509, "Liza", "Liza", "Surathkal", "London", 575029, "India"),
    (510, "Thamina", "Fabiha", "Surathkal", "London", 575075, "UK");

INSERT INTO products
    VALUES (1, "Apple", 101, 1, 50, 18),
    (2, "Orange", 103, 2, 80, 18),
    (3, "Cherry", 104, 3, 10, 32),
    (4, "Strawberry", 107, 44, 50, 44),
    (5, "Grape", 110, 5, 16, 57),
    (6, "Pears", 108, 6, 20, 59),
    (7, "Berries", 109, 7, 25, 70),
    (8, "Melons", 106, 8, 52, 60),
    (9, "Mango", 105, 9, 30, 180),
    (10, "Banana", 102, 27, 50, 10);
```

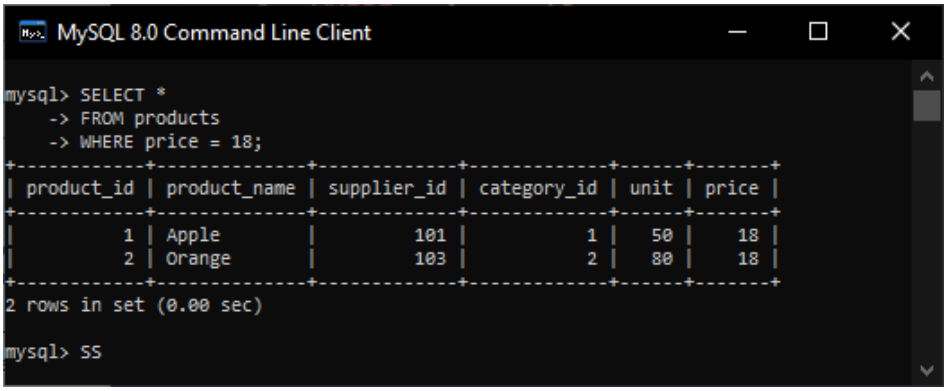
a. Increase the price of all products by 5 and display it as 'Price+10' in products table.

```
SELECT
    *,
    price*5 AS "price+10"
FROM products
```



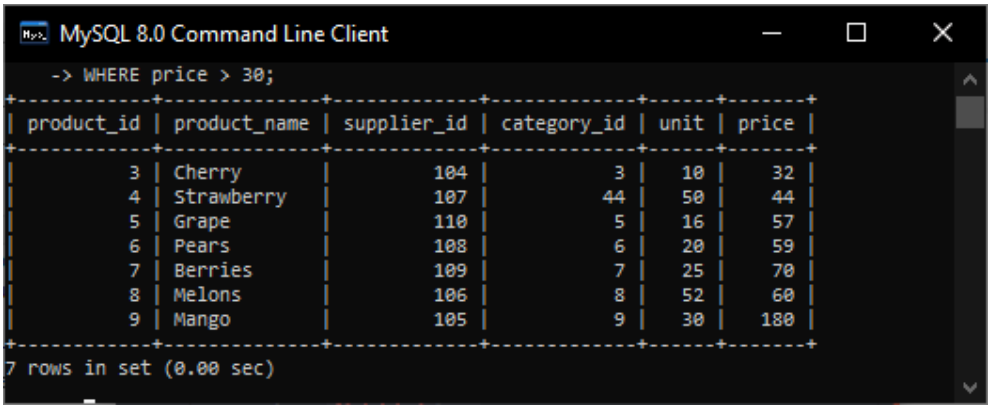
b. List all the items from products whose price = 18

```
SELECT *
FROM products
WHERE price = 18
```



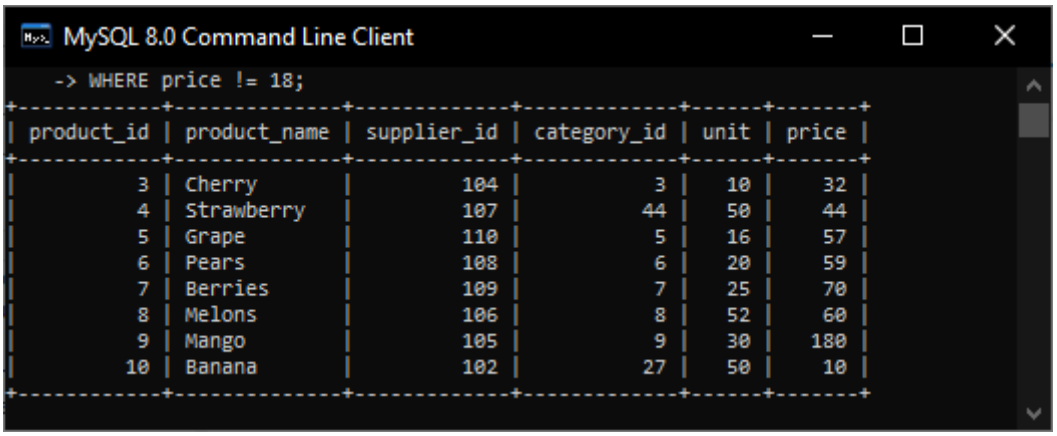
c. List all the items from products whose price is more then 30

```
SELECT *
FROM products
WHERE price > 30
```



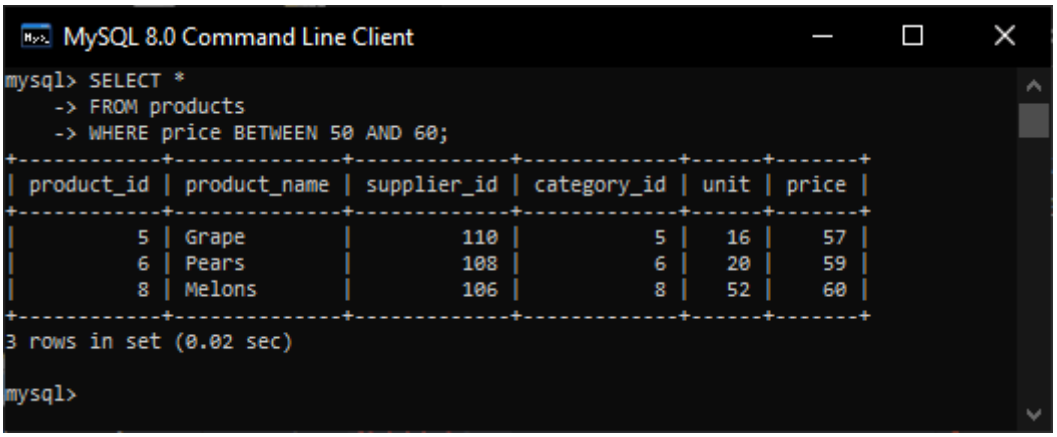
d. List all the items from products whose price is not equal to 18

```
SELECT *
FROM products
WHERE price != 18
```



e. List the items from products whose price is between 50 and 60

```
SELECT *
FROM products
WHERE price BETWEEN 50 AND 60
```

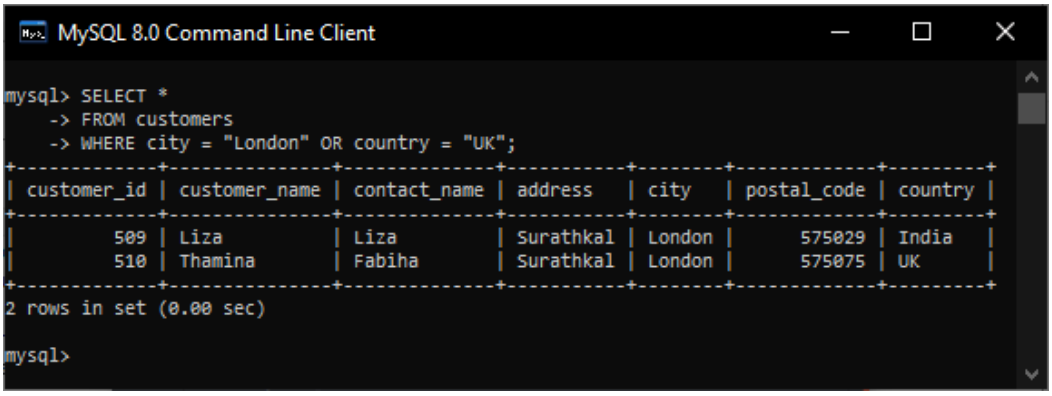


f. List the customer details from customers whose city is London and country is UK.

```
SELECT *
FROM customers
WHERE city = "London" AND country = "UK"
```

g. List the customer details from customers whose city is London or country is UK.

```
SELECT *
FROM customers
WHERE city = "London" OR country = "UK"
```



h. List the customer details from customers whose city matches with the list of cities among Paris, London, San Francisco.

```
SELECT *
FROM customers
WHERE city IN ("Paris", "London", "San Francisco")
```